



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.               | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------|-------------|----------------------|---------------------|------------------|
| 10/557,297                    | 11/18/2005  | Gianni Perdomi       | MI 6108 (US)        | 7324             |
| 34872                         | 7590        | 07/09/2008           | EXAMINER            |                  |
| Basell USA Inc.               |             |                      | NELSON, MICHAEL B   |                  |
| Delaware Corporate Center II  |             |                      | ART UNIT            | PAPER NUMBER     |
| 2 Righter Parkway, Suite #300 |             |                      |                     |                  |
| Wilmington, DE 19803          |             |                      | 1794                |                  |
|                               |             |                      |                     |                  |
|                               |             |                      | MAIL DATE           | DELIVERY MODE    |
|                               |             |                      | 07/09/2008          | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 10/557,297             | PERDOMI, GIANNI     |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | MICHAEL B. NELSON      | 1794                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 07 May 2008.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-10 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-10 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 05/07/08.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed 05/07/08 has been entered. Claims 1-10 are pending in the application. The previous objection to claims 1 and 6 have been withdrawn in light of applicant's amendments. The previous rejection under 35 U.S.C. 112, second paragraph has been withdrawn in light of applicant's arguments. The grounds of rejection presented in the current office action have been necessitated by applicant's amendments.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 6, 7, the phrase "comprising" is used with physical properties (i.e. comprising a density...comprising a melt flow rate...comprising a MD tear resistance...). The phrase comprising is meant to designate non-exclusive limitations (i.e. a film comprising EVA can also comprise other polymers). The use of this phrase with definite physical properties like density renders the claims vague and indefinite in that it is unclear how a limitation on the density of a material can be non-exclusive. It is suggested that the phrase used for physical property limitations be "having" or "wherein is" (i.e. a film having a melt flow rate...a film wherein the melt flow rate is...). The examiner notes that the use of the phrase comprising is

appropriate for non-exclusive parts of a whole (i.e. polymer blend components, ester compositions etc.) Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karaoglu et al. (US 6,492,010).

Regarding claim 1, Karaoglu et al. discloses a stretchable wrap film having a value of MD tear resistance, a value of TD tear resistance, and a value of MD tensile strength at 30% comprising a polymer blend, the polymer blend comprising (percent by weight):

I) 50 to 90% of an ethylene polymer composition

(See C10, L15-30. Resin IT8 is an ethylene plastomer, C9 L45-57, and resin IT3 is an mLLDPE, C9 L09-25, both of which are ethylene polymers. Combined with IT11, which is also an ethylene polymer, gives a composition that is 69 wt% of the polymer blend of Layer A, which is within the claimed range)

comprising a density ranging from 0.920 to 0.94 g/mL

(See C10, L15-30. The weight averaged density of the combination of IT8 (0.873 g/ml), IT3 (0.9150 g/ml) and IT11 (0.948 g/ml) is .921g/mL, which is within the claimed range)

the ethylene polymer composition selected from the group consisting of: an interpolymers of ethylene with at least one comonomer selected from the group consisting of:

(1) ethylenically unsaturated organic monomer of esters of unsaturated C3-C20 monocarboxylic acids and C1 to C24 monovalent aliphatic or alicyclic alcohols,

(See C9 L57-7. Resin IT11 is an ethylene/methyl acrylate copolymer. Methyl acrylate is an ester of the type (1) above.)

wherein the ester content ranges from 2.5 to 8 wt % based on the total weight of the ethylene polymer composition

(See C10, L15-30 also see C9 L57-7. IT11 has a methyl acrylate composition of 27wt % and in combination with IT8 and IT3

components makes an overall methyl acrylate composition of 7.8 wt%, which is within the claimed range);

II) 10 to 50% of an ethylene-based polymer component having a density ranging from 0.9 to 0.930 g/mL and a melt flow rate up to 4 g/10 min

(See C10 L15-30 also see C9 L35-40. In stretch film Layer A, IT4 is present at 31wt% of Layer A, the density is 0.917 g/mL and the melt flow rate is 2.3 g/10min, all of which are within the claimed range)

the ethylene-based polymer component being selected from:

i) a linear polyethylene consisting of ethylene and a first  $\text{CH}_2=\text{CHR}$  alpha-olefin, where R is a hydrocarbon radical having 2-8 carbon atoms

(see C9 L25-40. In stretch film Layer A, IT4 is ethylene-octene-1 which is a linear polyethylene of type i).;

Karaoglu et. al is silent as to the MD tear resistance, the TD tear resistance and the MD tensile strength of the stretch wrap film. However, in light of the substantially identical polymer composition of the stretch wrap film in Karaoglu et. al with the instant stretch wrap film, it will, inherently, possess the claimed properties. See MPEP 2112.

Karaoglu et. al does not explicitly disclose the specific 0.5 to 20 mol% of alpha-olefin in the linear polyethylene (IIi). Since the rheological properties of the linear polyethylene are variables that can be modified, among others, by adjusting the mol% of alpha-olefin in the linear polyethylene, the mol% of alpha-olefin in the linear

polyethylene would have been considered a result effective variables by one having ordinary skill in the art at the time the invention was made. As such, through routine experimentation, one of ordinary skill in the art would have optimized the mol% of alpha-olefin in the linear polyethylene to obtain the desired rheological properties (In re Boesch, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (In re Aller, 105 USPQ 223).)

Regarding claim 2, Karaoglu et al. discloses all the claim limitations as set forth above. Additionally the reference discloses the film of claim 1, wherein polymer composition (I) is selected from ethylene- methyl acrylate copolymer, ethylene-ethyl acrylate copolymer, ethylene-butyl acrylate copolymer and ethylene-vinyl acetate copolymer (See C9, L57-67).

Regarding claim 3, Karaoglu et. al discloses all the claim limitations as set forth above. Additionally the reference discloses the film of claim 1, wherein linear polyethylene (i), the first CH<sub>2</sub>=CHR a-olefin is selected from butene-1, hexene-1, octene-1 and 4- methyl-1 –pentene (See C9, L25).

Regarding claim 6, Karaoglu et. al discloses all the claim limitations as set forth above. Additionally the reference discloses a container packaging comprising a stretchable wrap film (See C1, L16-45)

7. Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper (US 4,504,434).

Regarding claim 1, Cooper discloses a stretchable wrap film having a value of MD tear resistance, a value of TD tear resistance, and a value of MD tensile strength at 30% comprising a polymer blend, the polymer blend comprising:

I) 50-90% of an ethylene polymer composition having an ester content

(See C2 L45-60. The copolymer of ethylene and vinyl acetate is the ethylene polymer composition of I) above and is disclosed at between about 50 and 70wt% with the upper endpoint lying within the claimed range (C5, L15-40)),

comprising a recurring unit derived from an ester selected from

(1) ethylenically unsaturated organic monomer of esters of unsaturated C3-C20 monocarboxylic acids and C1 to C24 monoaliphatic or alicyclic alcohols, and

(2) vinyl esters of saturated C2-C18 carboxylic acids,

(See C2 L45-60. Vinyl acetate is an ester of the type (2) above)

wherein the ester content ranges from 2.5 to 8 wt. % based on the total weight of the ethylene polymer composition;

(See C5, L15-40, the content of vinyl acetate is disclosed as being between 4 and 25%, with the lower endpoint lying within the claimed range.)

and

II) 10-50% of an ethylene-based polymer component having a density ranging from .9 to .930 g/mL and a melt flow rate up to 4 g/10 min.

(C5,L40-C6, L15, the linear copolymer of ethylene and higher alkene is disclosed as being present at between 20 and 55% with the lower endpoint lying within the claimed range. The specific gravity of the copolymer is disclosed as being between 0.917 and 0.926.);

the ethylene-based polymer component being selected from:

i) a linear polyethylene consisting of ethylene and a first  $\text{CH}_2=\text{CHR}$  alpha-olefin, where R is a hydrocarbon radical having 2-8 carbon atoms

(See C2 L45-60. The linear copolymer of ethylene and a higher alkene is a linear polyethylene of type i) above.)

Cooper is silent as to density of the ethylene polymer composition having an ester content (I) ranging from 0.920 to .94 g/mL. However, in light of the substantially identical type of ester and ester composition in the ethylene polymer composition having an ester content of Cooper with the instant ethylene polymer composition having an ester content and in light of the melt index being disclosed as between 0.1 and 4.0 (C5, L10-40), it will, inherently, possess the claimed properties. See MPEP 2112.

Cooper is silent as the ethylene-based polymer component (II) having a melt flow rate up to 4 g/10 min. However, in light of the substantially identical alpha-olefin type

and composition of the ethylene-based polymer component and the substantially identical density of the ethylene-based polymer component of Cooper with the instant the ethylene-based polymer component, it will, inherently, possess the claimed properties.

See MPEP 2112.

Cooper is silent as to the MD tear resistance, the TD tear resistance and the MD tensile strength of the stretch wrap film. However, in light of the substantially identical polymer composition of the stretch wrap film in Cooper with the instant stretch wrap film, it will, inherently, possess the claimed properties. See MPEP 2112.

Cooper does not explicitly disclose the specific 0.5 to 20 mol% of alpha-olefin in the linear polyethylene (IIi). Since the rheological properties of the linear polyethylene are variables that can be modified, among others, by adjusting the mol% of alpha-olefin in the linear polyethylene, the mol% of alpha-olefin in the linear polyethylene would have been considered a result effective variables by one having ordinary skill in the art at the time the invention was made. As such, through routine experimentation, one of ordinary skill in the art would have optimized the mol% of alpha-olefin in the linear polyethylene to obtain the desired rheological properties (In re Boesch, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (In re Aller, 105 USPQ 223).)

Regarding claim 2 Cooper discloses all the claim limitations as set forth above.

Additionally the reference discloses the film of claim 1, wherein polymer composition (I) is selected from ethylene- methyl acrylate copolymer, ethylene-ethyl acrylate copolymer, ethylene-butyl acrylate copolymer and ethylene-vinyl acetate copolymer (See C2, L47-54)

Regarding claim 3, Cooper discloses all the claim limitations as set forth above.

Additionally the reference discloses the film of claim 1, wherein linear polyethylene (i), the first CH<sub>2</sub>=CHR a-olefin is selected from butene-1, hexene-1, octene-1 and 4- methyl-1 –pentene (See C5, L60-65).

Regarding claim 6, Cooper discloses all the claim limitations as set forth above.

Additionally the reference discloses a container packaging comprising a stretchable wrap film (See C1, L7-12)

8. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karaoglu et. al (US 6,492,010) as applied to claims 1-3 and 6 above, and in view of Cometto et. al (WO 9520009 A1).

Regarding claims 4 and 5, Karaoglu et. al discloses the claim limitation as set forth above.

Karaoglu et. al does not disclose a polymer blend comprising a random polymer of ethylene blended with a random interpolymer with propylene wherein the random

polymer of ethylene is a ethylene-butene-1 copolymer and wherein the random polymer of propylene is a propylene-ethylene-butene-1 terpolymer.

Cometto et. al does disclose a polymer blend comprising a random polymer of ethylene blended with a random interpolymer of propylene

(See page 4, the described polymeric compositions is the polymer blend) wherein the random polymer of ethylene is an ethylene-butene-1 copolymer (claim 4)

(See page 7, component (a) corresponds to the random polymer of ethylene and a copolymer of ethylene and butene-1 is equivalent to an ethylene-butene-1 copolymer)

and wherein the random polymer of propylene is a propylene-ethylene-butene-1 terpolymer. (claim 5)

(See page 7, component (b) corresponds to the random polymer of propylene and a copolymer of propylene with ethylene and butene-1 is equivalent to an propylene-ethylene-butene-1 terpolymer)

Cometto et. al further discloses that the polymer blend with the particular random polymers of ethylene and propylene has advantages of improved processing characteristics and mechanical properties, including, among others, impact resistance and tear resistance. These properties are improved over the alternative linear low density polyethylene (LLDPE), which was disclosed above in Karaoglu et. al as a component of the stretch wrap film (See Page 3).

It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the stretch wrap film as taught by Karaoglu et. al, by

substituting the linear polyethylene with the polymer blend comprising a random polymer of ethylene blended with a random interpolymer of propylene wherein the random polymer of ethylene is a ethylene-butene-1 copolymer and wherein the random polymer of propylene is a propylene-ethylene-butene-1 terpolymer as taught by Cometto et. al for the purpose of improving the processing characteristics and the mechanical properties of the stretch wrap film.

Modified Karouglu et al. is silent as to the haze of the stretch wrap film being less than 16% however given the substantially similar polymer blend composition of the components in modified Karouglu et al. with the instant stretch wrap film, it will, inherently, posses the claimed properties. See MPEP 2112.

9. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper (US 4,504,434) as applied to claims 1-3 and 6 above, and in view of Cometto et. al (WO 9520009 A1).

Regarding claims 4 and 5, Cooper discloses the claim limitation as set forth above. Cooper does not disclose a polymer blend comprising a random polymer of ethylene blended with a random interpolymer with propylene wherein the random polymer of ethylene is a ethylene-butene-1 copolymer and wherein the random polymer of propylene is a propylene-ethylene-butene-1 terpolymer.

Cometto et. al does disclose a polymer blend comprising a random polymer of ethylene blended with a random interpolymer of propylene

(See page 4, the described polymeric compositions is the polymer blend)

wherein the random polymer of ethylene is an ethylene-butene-1 copolymer

(See page 7, component (a) corresponds to the random polymer of ethylene and a copolymer of ethylene and butene-1 is equivalent to an ethylene-butene-1 copolymer)

and wherein the random polymer of propylene is a propylene-ethylene-butene-1 terpolymer.

(See page 7, component (b) corresponds to the random polymer of propylene and a copolymer of propylene with ethylene and butene-1 is equivalent to an propylene-ethylene-butene-1 terpolymer)

Cometto et. al further discloses that the polymer blend with the particular random polymers of ethylene and propylene has advantages of improved processing characteristics and mechanical properties, including among others impact resistance and tear resistance (see Cometto et. al page 3). These properties are improved over the alternative linear polyethylene, which was disclosed above in Cooper as a component of the stretch wrap film (See paragraph 7 of the current office action, regarding claim 1).

It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the stretch wrap film as taught by Cooper, by substituting the linear polyethylene with the polymer blend comprising a random polymer of ethylene blended with a random interpolymer of propylene wherein the random polymer of ethylene is a ethylene-butene-1 copolymer and wherein the random polymer of propylene is a propylene-ethylene-butene-1 terpolymer as taught by Cometto et. al for the purpose

of improving the processing characteristics and the mechanical properties of the stretch wrap film.

Modified Cooper is silent as to the haze of the stretch wrap film being less than 16% however given the substantially similar polymer blend composition of the components in modified Cooper with the instant stretch wrap film, it will, inherently, possess the claimed properties. See MPEP 2112.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Karaoglu et al. (US 6,492,010).

Regarding claim 7, Karaoglu et al. discloses a stretchable wrap film having a value of MD tear resistance, a value of TD tear resistance, and a value of MD tensile strength at 30% comprising a polymer blend, the polymer blend comprising (percent by weight):

I) 50 to 90% of an ethylene polymer composition

(See C10, L15-30. Resin IT8 is an ethylene plastomer, C9 L45-57, and resin IT3 is an mLLDPE, C9 L09-25, both of which are ethylene polymers. Combined with IT11, which is also an ethylene polymer, gives a composition that is 69 wt% of the polymer blend of Layer A, which is within the claimed range) comprising a density ranging from 0.920 to 0.94 g/mL

(See C10, L15-30. The weight averaged density of the combination of IT8 (0.873 g/ml), IT3 (0.9150 g/ml) and IT11 (0.948 g/ml) is .921g/mL, which is within the claimed range) the ethylene polymer being selected from ethylene methyl methacrylate...

(See C9 L57-7. Resin IT11 is an ethylene/methyl acrylate copolymer.)

wherein the ester content ranges from 2.5 to 8 wt % based on the total weight of the ethylene polymer composition

(See C10, L15-30 also see C9 L57-7. IT11 has a methyl acrylate composition of 27wt % and in combination with IT8 and IT3 components makes an overall methyl acrylate composition of 7.8 wt%, which is within the claimed range);

II) 10 to 50% of an ethylene-based polymer component having a density ranging from 0.9 to 0.930 g/mL and a melt flow rate up to 4 g/10 min

(See C10 L15-30 also see C9 L35-40. In stretch film Layer A, IT4 is present at 31wt% of Layer A, the density is 0.917 g/mL and the melt flow rate is 2.3 g/10min, all of which are within the claimed range)

the ethylene-based polymer component being selected from:

i) a linear polyethylene consisting of ethylene a first  $\text{CH}_2=\text{CHR}$  a-olefin, where R is a hydrocarbon radical having 2-8 carbon atoms

(see C9 L25-40. In stretch film Layer A, IT4 is ethylene-octene-1 which is a linear polyethylene of type i).;

Karaoglu et. al is silent as to the MD tear resistance, the TD tear resistance and the MD tensile strength of the stretch wrap film. However, in light of the substantially identical polymer composition of the stretch wrap film in Karaoglu et. al with the instant stretch wrap film, it will, inherently, posses the claimed properties. See MPEP 2112.

Karaoglu et. al does not explicitly disclose the specific 0.5 to 20 mol% of alpha-olefin in the linear polyethylene (IIi). Since the rheological properties of the linear polyethylene are variables that can be modified, among others, by adjusting the mol% of alpha-olefin in the linear polyethylene, the mol% of alpha-olefin in the linear polyethylene would have been considered a result effective variables by one having ordinary skill in the art at the time the invention was made. As such, through routine experimentation, one of ordinary skill in the art would have optimized the mol% of alpha-olefin in the linear polyethylene to obtain the desired rheological properties (In re Boesch, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (In re Aller, 105 USPQ 223).)

11. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karaoglu et. al (US 6,492,010) as applied to claims 1-3 and 6 above, and in view of Cometto et. al (WO 9520009 A1).

Regarding claims 8 and 9, Karaoglu et. al discloses the claim limitation as set forth above.

Karaoglu et. al does not disclose a polymer blend comprising a random polymer of ethylene blended with a random interpolymer with propylene wherein the random polymer of ethylene is a ethylene-butene-1 copolymer and wherein the random polymer of propylene is a propylene-ethylene-butene-1 terpolymer.

Cometto et. al does disclose a polymer blend comprising a random polymer of ethylene blended with a random interpolymer of propylene

(See page 4, the described polymeric compositions is the polymer blend) wherein the random polymer of ethylene is an ethylene-butene-1 copolymer (claim 4)

(See page 7, component (a) corresponds to the random polymer of ethylene and a copolymer of ethylene and butene-1 is equivalent to an ethylene-butene-1 copolymer)

and wherein the random polymer of propylene is a propylene-ethylene-butene-1 terpolymer. (claim 5)

(See page 7, component (b) corresponds to the random polymer of propylene and a copolymer of propylene with ethylene and butene-1 is equivalent to an propylene-ethylene-butene-1 terpolymer)

Cometto et. al further discloses that the polymer blend with the particular random polymers of ethylene and propylene has advantages of improved processing characteristics and mechanical properties, including, among others, impact resistance and tear resistance. These properties are improved over the alternative linear low density

polyethylene (LLDPE), which was disclosed above in Karaoglu et. al as a component of the stretch wrap film (See Page 3).

It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the stretch wrap film as taught by Karaoglu et. al, by substituting the linear polyethylene with the polymer blend comprising a random polymer of ethylene blended with a random interpolymer of propylene wherein the random polymer of ethylene is a ethylene-butene-1 copolymer and wherein the random polymer of propylene is a propylene-ethylene-butene-1 terpolymer as taught by Cometto et. al for the purpose of improving the processing characteristics and the mechanical properties of the stretch wrap film.

Modified Karouglu et al. is silent as to the haze of the stretch wrap film being less than 16% however given the substantially similar polymer blend composition of the components in modified Karouglu et al. with the instant stretch wrap film, it will, inherently, posses the claimed properties. See MPEP 2112.

***Response to Arguments***

12. The previous objection to claims 1 and 6 have been withdrawn in light of applicant's amendments. The previous rejection under 35 U.S.C. 112, second paragraph has been withdrawn in light of applicant's arguments.

13. Regarding applicants arguments on pages 8 and 9, applicant argues that the limitations of the current claims, with regard to the recitation of component (I) having an ester content for a

blend of an ethylene ester copolymer and a low density ethylene homopolymer, is not taught or suggested by Karaoglu et al..

First, the examiner notes that, as currently drafted, claims 1 and 6 recite this limitation in the alternative to, and not replacing the, previous limitation on component (I) which concern substantially only the ester content. For clarification, in instant claim 1, the ethylene polymer composition of component (I) is selected from the group consisting of: an interpolymer of ethylene with at least one comonomer... and a blend comprising LDPE. Hence, Karaoglu et al. reads on component (I) based solely on the fact that it reads on the first ethylene polymer composition, the limitation of which has remained substantially unchanged from the previous draft of the claims.

Regarding the added alternative limitation concerning the LDPE polymer blend for composition (I), Karaoglu et al. discloses a blend comprising IT8, IT11 and IT3, (C10, L15-25). IT3 is a linear low density polyethylene having a melt flow rate of 3.5 and a density of 0.915 (C9, L5-25) and meeting the limitations of (I)a. IT11 is an ethylene methacrylate copolymer meeting the limitations of (I)b. The blend of IT3 and IT11 yields an ester content of 8.57 wt%, (i.e.  $(0*43+27*20)/63$ ), which, given that the amount of ester in the EMA polymer is disclosed as being less than 27% (C5, L10-35), reads on the instant claimed range. The blend of IT11 and IT3 is 63%wt of the overall composition of layer A (C10, L15-30). With regard to applicant's comments on IT8 being a plastomer, it is noted that while IT8 is an ethylene plastomer it is still a polymer of ethylene and more to the point the limitations of instant claims do not preclude a plastomer. With regard to applicant's comments on IT3 being a linear low density polyethylene, it is noted that IT3 is a low density ethylene homopolymer. Hence, Karaoglu et al. does in fact

read on both alternative limitations of component (I). Subsequently, the argument that the stretch wrap film of Karaoglu et al. is substantially similar with the instant claimed stretch wrap film is maintained and the MD tear resistance, TD tear resistance and the MD tensile strength would be inherent.

14. Regarding applicant's arguments on pages 9 and 10, with regard to the examples used as cited evidence from Cooper to reject the instant limitations, the examiner used the examples of the previous office action merely for the ease of the applicant in locating the relevant section within the document as a whole. Furthermore, the examples used in the various embodiments (i.e. examples 1 and 6), are merely point data taken from the broader ranges disclosed elsewhere in the prior art. The disclosed ranges, and not the specific examples, are used in the current rejection of the instant claims in view of Cooper.

The density of the ethylene-based polymer component is disclosed as being within the instant claimed range (C5, L40-C6, L15) and therefore the instant claimed melt flow rate should also inherently be within the range. Also, the melt flow index of the EVA polymer (C5, L15-40), being between 0.25 and 2.0, as compared to the melt flow indexes of the ester containing copolymers of the instant specification (pages 11-12), would inherently have the instant claimed density. Subsequently, the argument that the stretch wrap film of Cooper is substantially similar with the instant claimed stretch wrap film is maintained and the MD tear resistance, TD tear resistance and the MD tensile strength would be inherent.

Regarding the result effective variable argument for the percent of alpha-olefins in the linear polyethylene component (II), Cooper discloses using varying degrees of branching to

affect the densities and melt flow rates of the polyethylene component (C5, L40-C6, L15). Since it was known to those having ordinary skill in the art that the degree of copolymerization will also effect the density and melt flow rate of the resulting copolymer, it would have been obvious to adjust the degree of copolymerization to optimized the rheological properties of the resulting copolymer. Hence, the result effective variable argument for the degree of copolymerization is maintained.

15. Regarding applicants arguments on pages 11-12, with regard to the Commeto et al. teaching away from the combination with Karaoglu et al. and Cooper because of the haze value of the examples in Commeto et al., while the examples of Commeto et al. do in fact have haze values outside of the instant claimed limitations, these properties would not carry over, nor would one of ordinary skill in the art expect them to carry over, when used as a replacement for the LLDPE of Karaoglu et al. or as a replacement for the linear polyethylene of Cooper since the examples of Commeto et al. have only the polymer blend of (II)ii, while the combination with Karaoglu et al. or Cooper would have the polymer blend of (II)ii, further blended with other polymers, which would alter the haze of the final composition.

### *Conclusion*

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL B. NELSON whose telephone number is (571) 270-3877. The examiner can normally be reached on Monday through Thursday 6AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MN/  
06/25/08

/Carol Chaney/  
Supervisory Patent Examiner, Art Unit 1794